

NOVA COLLEGE-WIDE CONTENT SUMMARY
MDL 100 - INTRODUCTION TO MEDICAL LABORATORY TECHNOLOGY (2 CR.)

Course Description

Introduces the basic principles, techniques, and vocabulary applicable to all phases of medical laboratory technology. Lecture 1 hour per week. Laboratory 3 hours. Total 4 hours per week.

General Course Purpose

The purpose of this course is to introduce the student to basic concepts of medical laboratory science. The course emphasizes the importance of safety, integrity, and good judgment. A broad foundation is provided to explore practical applications in the clinical laboratory to better prepare students for entry into the MLT AAS degree program.

Course Prerequisites/Co-requisites

None

Course Objectives

- Outline the organization, function, and staff of the clinical laboratory.
- State other members of the health care team needed for quality patient care.
- Describe and apply basic concepts of medical ethics.
- Define common terms and abbreviations used in the medical laboratory.
- Demonstrate routine safety practices used in the clinical laboratory.
- Apply principles of patient safety and patient confidentiality.
- Discuss pathogens that could be transmitted by blood or body fluids.
- Discuss collection, labeling, and processing of clinical specimens according to established procedures.
- Define terms associated with safety, accreditation, and regulatory agencies.
- Apply the metric system to routine laboratory mathematics problems, and use formulas to calculate strengths of dilutions and solutions.
- Define quality assurance in the clinical laboratory.
- Perform quality control procedures.
- Associate specific basic laboratory procedures with the department in which they are performed.

Major Topics to be Included

- Laboratory safety
- Regulatory and accreditation agencies
- Role of the clinical lab in patient diagnosis and treatment
- Medical terminology
- Patient safety and confidentiality
- Specimen type, collection, and preparation for the major laboratory departments
- Quality control and quality assurance in the clinical lab
- Metric system and basic calculations
- Lab ware: beakers, flasks, graduated cylinders, balances, centrifuges, pipets.